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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,421	10/01/2003	Gee-Sung Chae	8734.241.00 US	5657

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WASHINGTON, DC 20006

EXAMINER	
CHOW, DOON Y	
ART UNIT	**PAPER NUMBER**
2629	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/674,421	CHAE ET AL.	
	Examiner	Art Unit	
	Dennis-Doon Chow	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,5,8-13,15 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4-5, 8-13 and 15-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4, 5, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto et al. (6069678) in view of Ishii et al. (6806925).

Regarding to claim 1, Sakamoto discloses an in-plane switching mode liquid crystal display device, comprising: a plurality of gate lines (101, Fig. 6) and data lines (201, Fig. 6) defining a plurality of pixels; a driving device in each of the pixels; a pixel electrode in each of the pixels; and a common electrode (301, Fig. 6) completely overlapping a data line in width (Fig. 6). Sakamoto discloses the driving device is a thin film transistor (501, Fig. 6). Sakamoto discloses the thin film transistor comprises: a gate electrode (1405, Fig. 25) on a substrate; an insulating layer (2405, Fig. 25) over the gate electrode; a semiconductor layer (1105, 2505, Fig. 25) on the insulating layer; a source electrode (1005, Fig. 25) and a drain electrode (905, Fig. 25) on the semiconductor layer; and a passivation layer (2605, Fig. 25) over the source electrode, drain electrode and semiconductor layer.

Sakamoto does not explicitly disclose the pixel electrode is formed on the passivation layer. Ishii discloses forming a pixel electrode on a passivation layer (col. 11, lines 25-30).

In light of Ishii, it would have been obvious to one of ordinary skill in the art to form Sakamoto's pixel electrode on the passivation layer because Sakamoto teaches that pixel electrode can be formed in a number of ways.

Regarding to claim 4, Sakamoto discloses the data lines (201, Fig. 6) are formed on the insulating layer.

Regarding to claim 5, Sakamoto discloses the common electrode (305, Fig. 27) is formed on the passivation layer (2605, Fig. 27).

Regarding to claims 10 and 11, see the disclosures of claim 1. Sakamoto further discloses a second common electrode in each pixel (the center portion of common electrode, Figs, 6, 10, 14), wherein the width of the first common electrode is larger than that of the second common electrode.

3. Claims 8-9, 12-13, and 15-16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto et al. in view of Ishii et al. and Kim (6969872).

Regarding to claims 8-9 and 12-13, Sakamoto discloses an in-plane switching mode liquid crystal display device, comprising: a plurality of gate lines (101, Fig. 6) and

data lines (201, Fig. 6) defining a plurality of pixels; a firs and second driving devices in a first and second of the pixels; a first and second pixel electrodes in first and second of the pixels; and a common electrode (301, Fig. 6) completely overlapping a data line in width (Fig. 6). Sakamoto discloses the driving devices comprise a thin film transistor (501, Fig. 6). Sakamoto discloses the thin film transistor comprises: a gate electrode (1405, Fig. 25) on a substrate; an insulating layer (2405, Fig. 25) over the gate electrode; a semiconductor layer (1105, 2505, Fig. 25) on the insulating layer; a source electrode (1005, Fig. 25) and a drain electrode (905, Fig. 25) on the semiconductor layer; and a passivation layer (2605, Fig. 25) over the source electrode, drain electrode and semiconductor layer.

Sakamoto does not explicitly disclose the pixel electrode is formed on the passivation layer. Ishii discloses forming a pixel electrode on a passivation layer (col. 11, lines 25-30).

In light of Ishii, it would have been obvious to one of ordinary skill in the art to form Sakamoto's pixel electrode and common electrodes on the passivation layer because Sakamoto teaches that the electrodes can be formed in a number of ways.

Sakamoto does not disclose the passivation layer is formed of an organic material.

Kim, in the same display field, discloses a passivation layer is formed of an organic material as such photoacryl (col. 6, lines 8-15).

In light of Kim, it would have been obvious to one of ordinary skill in the art to use Kim's organic material as such photoacryl in Sakamoto's display device to form the passivation layer because it provides good flatness characteristic and low permittivity (col. 6, lines 8-15).

Regarding to claims 15-16, Sakamoto further discloses a second common electrode (the center portion of the common electrode) in the first pixel for forming a horizontal electric field with the first pixel electrode; and a third common electrode (the center portion of the common electrode) in the second pixel for forming a horizontal electric field with the second pixel electrode, wherein a width of the first common electrode is larger than that of one of the second common electrode and the third common electrode.

Response to Arguments

4. Applicant's arguments filed 1/11/07 have been fully considered but they are not persuasive.

Applicant argues that Sakamoto does not teach that the pixel electrode can be formed in a number of ways. The examiner disagrees with applicant's arguments because Sakamoto, at least in Figs. 2, 25-27, 29-31 and 33-35, clearly teaches the electrode, the common electrode and the passivation layer can be formed in a number of ways.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis-Doon Chow whose telephone number is 571-272-7767. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on 571-272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dennis-Doon Chow
Primary Examiner
Art Unit 2629

D. Chow
March 17, 2006